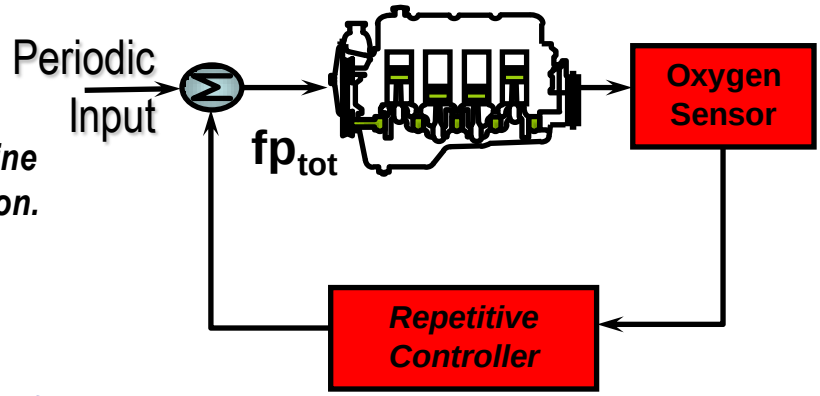
Data Driven Controller Identification

Research Summary:

Demonstrated is the use of data for the purpose of ***controller identification*** as opposed to controller design. ***The objective is to identify controllers using nonparametric and parametric modeling techniques.*** The control solution reveals controller structure and calibration in a systematic design process that can be executed in a desktop environment.

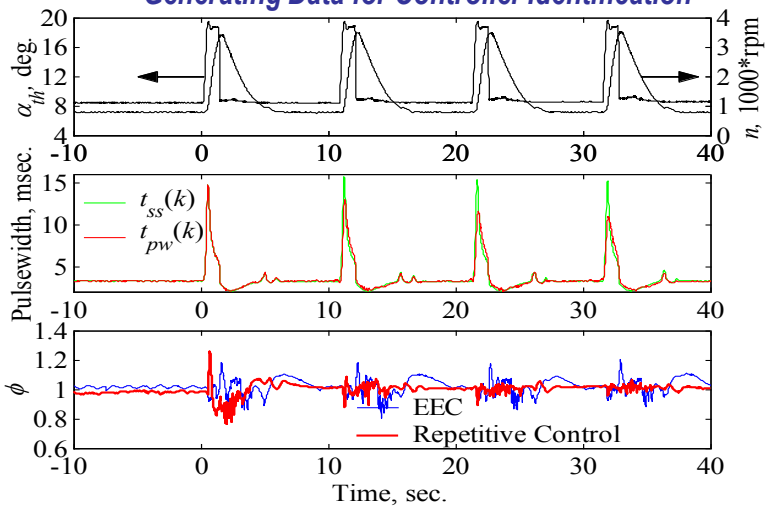
Controller Architecture

Input is used to generate engine data for controller identification.

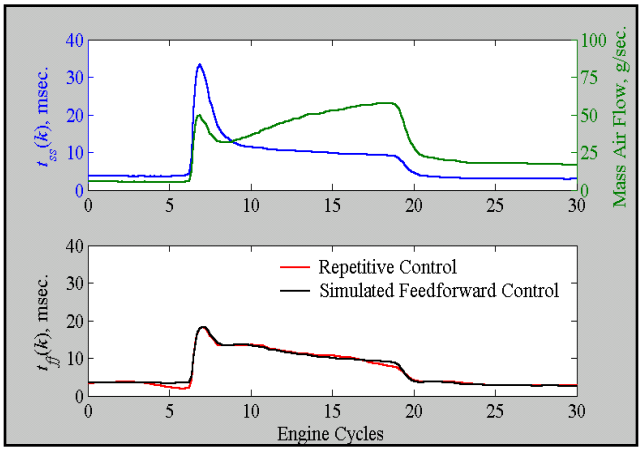


Results

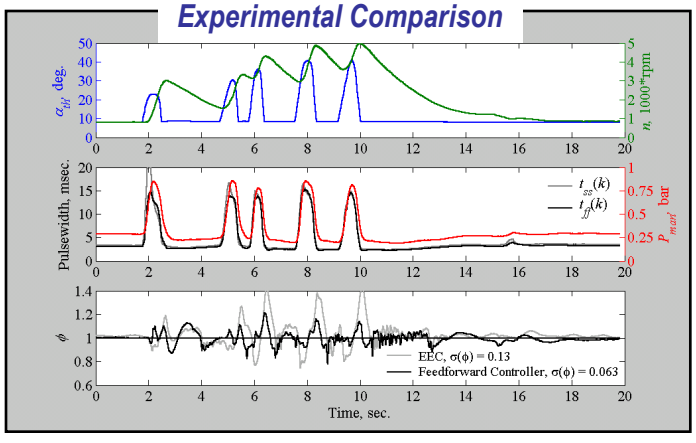
Generating Data for Controller Identification



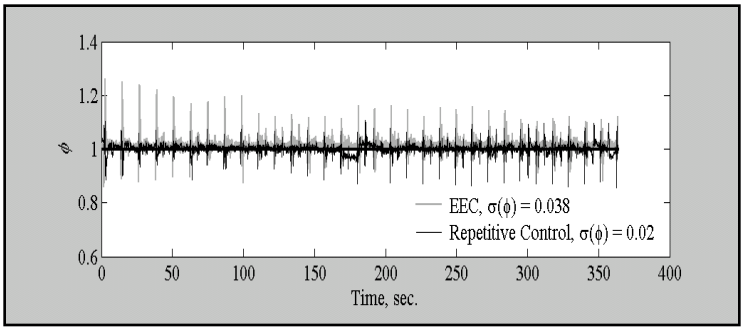
Identified Controller Response



Experimental Comparison



Temperature Scheduled Controller



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